Remarks

Entry of the above-noted amendments, reconsideration of the application, and allowance of all claims pending are respectfully requested. By this amendment, claims 6, 12, 18, and 23 are amended and claims 45-49 are added. These amendments to the claims constitute a bona fide attempt by applicants to advance prosecution of the application and obtain allowance of certain claims, and are in no way meant to acquiesce to the substance of the rejections. Support for the amendments can be found throughout the specification (e.g., page 10, line 30, to page 11, line 7), drawings (e.g., FIGS. 3-5), and claims and thus, no new matter has been added. Claims 4, 6-7, 10-12, 15-16, 18-31, 33-40, 42, and 44-49 are pending.

Allowable Subject Matter and Claim Objections:

Independent claims 12 and 18 were objected to because of alleged informalities, but were indicated as allowable if rewritten or amended to overcome the claim objections set forth in the Office Action. Applicants gratefully acknowledge this indication of allowability and have amended claims 12 and 18 as indicated in the Office Action. An indication of allowability of claims 12 and 18 is therefore respectfully requested.

Claims 4, 7, and 10-11 were objected to because of direct or indirect dependence on independent claim 6 which is discussed further below.

Claims 15-16, 19-22, and 25-31 were objected to because of direct or indirect dependence on independent claim 18. Claim 18 presented herewith is has been indicated as allowable, as discussed further above. These claims 15-16, 19-22, and 25-31 are allowable for the same reasons as independent claim 18, as well as for their own additional characterizations.

An indication of allowability of claims 15-16, 19-22, and 25-31 is therefore respectfully requested.

Claim Rejections - 35 U.S.C. §103

Claims 4, 6-7, 10-11, 23-24, 33-40, and 42 are rejected under 35 U.S.C. §103(a) as being unpatentable over Schramm, et al. (U.S. Patent No. 6,208,663; "Schramm") in view of Roobol, et al. (U.S. Patent No. 6,363,058; "Roobol"), further in view of Furuskar, et al. (U.S. Patent No. 6,704,898, "Furuskar"). This rejection is respectfully, but most strenuously, traversed.

Applicants respectfully submit that the Office Action's citations to the applied references, with or without combination, assuming, *arguendo*, that the combination of the Office Action's citations to the applied references is proper, do not teach or suggest one or more elements of the claimed invention, as further discussed below.

For explanatory purposes, applicants discuss herein one or more differences between the applied references and the claimed invention with reference to one or more parts of the applied references. This discussion, however, is in no way meant to acquiesce in any characterization that one or more parts of the applied references correspond to the claimed invention.

Applicants respectfully submit that the Office Action's citations to the applied references do not teach or suggest one or more elements of the claimed invention. A careful reading of the Office Action's citations to the applied references fails to teach or suggest, for example, the adaptive rate transmitter retransmits only a first subportion of a transmission unit that comprises the at least one RLC blocks and integer number of the coded sub-blocks, wherein the adaptive rate transmitter replaces a second subportion of the transmission unit by extended header information.

Schramm (column 8, lines 12-33) discloses dividing a block into TDMA bursts.

> According to another exemplary embodiment of the present invention, the stored copy of the erroneously received block is divided into a plurality of new blocks prior to mapping into the physical layer. Unlike the aforedescribed embodiments, this means resegmenting an original RLC block into two or more different RLC blocks. Each new RLC block will contain its own (new) BH and BCS. Retransmission of each new RLC block is then controlled by its own, separate ARQ procedure. This results in fewer information bits in the new RLC blocks relative to the original RLC block, which in turn means that mapping between the RLC blocks and the bursts will also vary.
>
> An example is shown in FIG. 6, wherein erroneously received block 70 is divided into two new blocks 72 and 74 prior to mapping into the TDMA bursts 76-90. Although only two new blocks 72 and 74 are shown in FIG. 6, those skilled in the art will appreciate that the old block 70 can be divided into more than two new blocks. FEC coding of the two new RLC blocks may use the same (or a different) FEC coding scheme. The information mapped to the bursts 76-90 is then modulated using the alternative scheme, in this example QPSK modulation.

Schramm discloses dividing the received RLC block into a first and second RLC block. Since the information of the RLC block has been divided into the first and second RLC blocks, the number of information bits in each of the first and second RLC blocks will necessarily be fewer than the number of information bits in the received RLC block. For example, where the received RLC block comprises twelve bits, the first RLC block would receive bits one through six, and the second RLC block would receive bits seven through twelve. However, a sum of the information bits in the first RLC block and the second RLC block will still be the same as the number of information bits in the received RLC block. For example, all of bits one through twelve will be retransmitted. The citation to Schramm by the Office Action does not disclose retransmitting only a portion of the received RLC block, for example, retransmitting only bits seven through twelve. Simply missing from the citation to Schramm by the Office Action is any mention of the adaptive rate transmitter retransmits only a first subportion of a transmission unit

that comprises the at least one RLC blocks and integer number of the coded sub-blocks, wherein the adaptive rate transmitter replaces a second subportion of the transmission unit by extended header information. This point has even been conceded by the Office Action (point 3, page 5, lines 1-4).

So, the citation to Schramm by the Office Action fails to satisfy at least one of applicants' claim limitations.

The shortcomings of the citation to Schramm by the Office Action relative to certain elements of the claimed invention have been discussed above. The Office Action proposes a combination of the citation to Schramm by the Office Action with a citation to Roobol by the Office Action. However, the citation to Roobol by the Office Action does not overcome the deficiency of the citation to Schramm by the Office Action. Applicants respectfully submit that the proposed combination of the citation to Schramm by the Office Action with the citation to Roobol by the Office Action fails to provide the required approach, assuming, *arguendo*, that the combination of the citation to Schramm by the Office Action with the citation to Roobol by the Office Action is proper.

Roobol (column 5, lines 41-52) discloses multiplexing data blocks onto a transmission block.

> Referring now to FIG. 6, there is illustrated the method by which the control/user data blocks 140 coming from a pair of radio bearer services are multiplexed together into a single transmission block 145. The control/user data blocks 140 are segmented into LLC PDUs 160 consisting of segmented data block portions 150 and a CRC bits 155 generated at the LLC stage 30. The LLC PDUs 160 are subdivided into smaller RLC/MAC PDUs 165 at the RLC level 35. The RLC/MAC PDUs 165 of different radio bearers having similar requirements are multiplexed into a single transmission block 145 for mapping onto a logical channel 40.

Roobol discloses multiplexing the data blocks into the single transmission block. Simply missing from the citation to Roobol by the Office Action is any mention of the adaptive rate transmitter retransmits only a first subportion of a transmission unit that comprises the at least one RLC blocks and integer number of the coded sub-blocks, wherein the adaptive rate transmitter replaces a second subportion of the transmission unit by extended header information. This point has even been conceded by the office action (point 3, page 5, lines 1-4).

So, the citation to Roobol by the Office Action fails to satisfy at least one of applicants' claim limitations.

The shortcomings of the citation to Schramm by the Office Action and the citation to Roobol by the Office Action relative to certain elements of the claimed invention have been discussed above. The Office Action proposes a combination of the citation to Schramm by the Office Action and the citation to Roobol by the Office Action with a citation to Furuskar by the Office Action. However, the citation to Furuskar by the Office Action does not overcome the deficiency of the citation to Schramm by the Office Action and the citation to Roobol by the Office Action. Applicants respectfully submit that the proposed combination of the citation to Schramm by the Office Action and the citation to Roobol by the Office Action with the citation to Furuskar by the Office Action fails to provide the required approach, assuming, *arguendo*, that the combination of the citation to Schramm by the Office Action and the citation to Roobol by the Office Action with the citation to Furuskar by the Office Action is proper.

Furuskar (column 6, lines 25-27) discloses adding a frame check sequence and a header to a segmented block, as cited in the Office Action (point 3, page 5, lines 5-8).

> A FCS and a header (H1) are added to the each of the segmented blocks 441. The entire block is convolutionally encoded with a rate 1/n code to produce coded block 442.

Furuskar discloses adding the header to the segmented block. The citation to Furuskar by the Office Action does not disclose transmitting only a portion of the segmented blocks. The citation to Furuskar by the Office Action does not disclose replacing a portion of the segmented blocks with extended header information. Simply missing from the citation to Furuskar by the Office Action is any mention of the adaptive rate transmitter retransmits only a first subportion of a transmission unit that comprises the at least one RLC blocks and integer number of the coded sub-blocks, wherein the adaptive rate transmitter replaces a second subportion of the transmission unit by extended header information.

So, the citation to Furuskar by the Office Action fails to satisfy at least one of applicants' claim limitations.

The citation to Schramm by the Office Action, the citation to Roobol by the Office Action, and the citation to Furuskar by the Office Action all fail to meet at least one of applicants' claimed features. For example, there is no teaching or suggestion in the citation to Schramm by the Office Action, the citation to Roobol by the Office Action, or the citation to Furuskar by the Office Action of replacing a portion of the transmission unit by extended header information.

Furthermore, the Office Action does not allege that the art of record provides any teaching, suggestion, or incentive for modifying the citation to Schramm by the Office Action, the citation to Roobol by the Office Action, and/or the citation to Furuskar by the Office Action to provide the claimed configuration.

For all the above reasons, independent claims 6, 23, and 42 presented herewith are believed neither anticipated nor obvious over the art of the record. The corresponding dependent

claims are believed allowable for the same reasons as the base claims 6, 23, or 42, as well as for their own additional characterizations.

Withdrawal of the §103 rejection is therefore respectfully requested.

In view of the above amendments and remarks, allowance of all claims pending is respectfully requested. If a telephone conference would be of assistance in advancing the prosecution of this application, the Examiner is invited to call applicants' attorney.

Respectfully submitted,

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Dated: June 21, 2004

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